Attorney Docket No. P02039US2A

Reply to Final Office Action dated October 28, 2009

Amendment dated December 28, 2009

OK TO ENTER: /R.R./

AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

- 1. (Cancelled)
- 2. (Previously presented) A method for preparing a functional polymer, the method comprising:

terminating a living polymer chain with a functionalizing agent where the functionalizing agent is defined by the formula

$$Z-R^4-\alpha$$

where Z is a leaving group or an addition group, R^4 is a bond or a divalent organic group, and α is a sulfur-containing heterocycle selected from the group consisting of thiirane, thietane, thiolane, thiazoline, dihydrothiophene, thiadiazine, thioxanthene, thianthrene, phenoxathiin, dihydroisothiazole, and thienofuran group or substituted form thereof.

- 3. (Cancelled)
- 4. (Cancelled)
- 5. (Cancelled)
- 6. (Cenceled)
- 7. (Previously Cancelled)

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- 8. (Previously presented) The method of claim 2, where Z comprises a halide, a thio alkoxide group, an alkoxide group, a dialkyl amine group, a nitrile group, a Schiff base, a ketone group, an aldehyde group, or an ester group.
- 9. (Cancelled)
- 10. (Cancelled)
- 11. (Cancelled)
- 12. (Previously presented) The method of claim 2, where the polymer chain is a rubbery polymer having a Tg that is less than 0°C.
- 13. (Cancelled)
- 14. (Previously presented) The method of claim 2, where the polymer chain is polybutadiene, polyisoprene, poly(styrene-co-butadiene), poly(styrene-co-butadiene-co-isoprene), poly(isoprene-co-styrene), or poly(butadiene-co-isoprene).
- 15. (Cancelled)
- 16. (Currently Amended) The method of claim 2, where the functionalizing agent is defined by the formula

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where L is a leaving group, R^4 is a bond or a divalent organic group, each R^2 is independently hydrogen or a monovalent organic group, and each R^3 is independently hydrogen or a monovalent organic group or where each R^3 combine with each other to form a divalent organic group.

- 17. (Previously presented) The method of claim 16, where the functionalizing agent is selected from the group consisting of 2-methylthio-2-thiazoline, 2-ethylthio-2-thiazoline, 2-propylthio-2-thiazoline, 2-butylthio-2-thiazoline, 2-pentylthio-2-thiazoline, 2-hexylthio-2-thiazoline, 2-heptylthio-2-thiazoline, 2-dodecylthio-2-thiazoline, 2-phenylthio-2-thiazoline, 2-benzylthio-2-thiazoline, 2-chloro-2-thiazoline, 2-bromo-2-thiazoline, 2-iodo-2-thiazoline, 2-dimethylamino-2-thiazoline, 2-diethylamino-2-thiazoline, 2-methoxy-2-thiazoline, 2-ethoxy-2-thiazoline, 2-(N-methyl-N-3-trimethoxysilylpropyl)-thiazoline, and 2-methylthio-1-aza-3-thia-bicyclo[3-4-0]-nonene.
- 18. (Previously presented) The method of claim 2, where the functionalizing agent is defined by the formula

where α is a sulfur-containing heterocycle selected from the group consisting of thiirane, thietane, thiolane, thiazoline, dihydrothiophene, thiadiazine, thioxanthene, thianthrene, phenoxathiin, dihydroisothiazole, and thienofuran group or substituted form thereof, each R^5 is independently a monovalent organic group, and R^6 is a bond or a divalent organic group.

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19. (Previously presented) The method of claim 18, where the functionalizing agent is defined by the formula

$$R^{5}O$$
 Si
 R^{7}
 N
 C
 R^{8}
 R^{7}
 R^{7}
 R^{7}
 R^{7}
 R^{7}
 R^{7}
 R^{7}
 R^{7}
 R^{7}
 R^{7}

where R⁵ is independently a monovalent organic group, each R⁷ is independently a bond or a divalent organic group, and R⁸ is hydrogen or a monovalent organic group.

20. (Previously presented) The method of claim 2, where the functionalizing agent is defined by the formula

$$R^5O$$
 S
 R^6
 R^3
 R^3
 R^3

where each R^2 is independently hydrogen or a monovalent organic group, each R^3 is independently hydrogen or a monovalent organic group or where each R^3 combine with each other to form a divalent organic group, each R^5 is independently a monovalent organic group, and R^6 is a bond or a divalent organic group.

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21. (Previously presented) The method of claim 2, where the functionalizing agent is selected from the group consisting of 2-(N-methyl-N-3-trimethyoxysilylpropyl)thiazoline, 2-(N-methyl-N-3-trimethyoxysilylpropyl)thiophene, 2-(N-methyl-N-3-trimethyoxysilylpropyl)thiazole, and the reaction product of 2-thienyl carboxaldehyde and aminopropyl trialkoxysilane.

- 22. (Cancelled)
- 23. (Cancelled)
- 24. (Cancelled)